NEWS

Boosting research at junction of climate science and AI

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15:27 (UTC) on Wed 16 Dec 2020

An ‘operational alliance’ has been signed by The Alan Turing Institute and the Met Office, formalising ambitions to co-design a dynamic programme of research.

The collaboration will drive new, cross-disciplinary research at the interface of data science, AI, climate science and weather forecasting. This important new alliance demonstrates the Institute’s continued commitment to tackling climate change and its impacts through data science and AI research.

The Alan Turing Institute is the UK’s national institute for data science and artificial intelligence, specialising in interdisciplinary research and approaching problems from new angles to deliver real-world solutions.

Together, researchers at the Turing and Met Office will draw on their combined expertise to address grand challenges in weather and climate science, data sciences and AI. They will help deliver research advances in key areas of common interest, including: the interfaces between climate and the loss of biodiversity; high-impact weather events and society; research at the interface between climate science and AI; predictive data analytics for air quality; and physics-driven machine learning in weather forecasts.

A key element of the collaboration will be delivered through the recently established Joint Centre for Excellence in Environmental Intelligence: a partnership between the Met Office and the University of Exeter.

Kick-starting the collaboration will be two joint projects, launching early next year. These will focus on environmental models, bringing different spatial scales together, from surface sensors to satellite sensors, and the impact of climate change on agriculture. This work is funded via the Turing's AI for science and government programme, which aims to deploy AI and data science in priority areas to support the UK economy and society.

Jon Rowe, Programme Director for Data Science for Science at the Alan Turing Institute, said: “This significant new collaboration will help to address a range of critical challenges in climate science. Being able to build a digital picture of our natural environment will allow for better monitoring of the impacts of climate change in agriculture, biodiversity, oceans, land, water, and the cryosphere.

“The unique combination of expertise from the Turing and the Met Office will provide opportunity for innovative, and impactful, research outcomes.”

Kirstine Dale, Met Office Principal Fellow and Co-Director of the Joint Centre for Environmental Intelligence, said: “Data Science is a rapidly developing area, with countless applications across science and technology. I’m delighted the Met Office has this opportunity to work closely with the Alan Turing Institute as the UK’s national institute for data science and artificial intelligence. We will be exploring how data science can help transform our understanding of a changing environment at an online Environmental Intelligence conference this week, featuring a keynote address from Professor Sir Adrian Smith FRS, Institute Director and Chief Executive of The Alan Turing Institute.”

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